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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/831,166	05/07/2001	Sebastien Leveque	034299-329	9044

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Robert E Krebs  
Thelen Reid & Priest LLP  
P O Box 640640  
San Jose, CA 95164-0640

EXAMINER
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PERILLA, JASON M

ART UNIT	PAPER NUMBER
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2634

DATE MAILED: 09/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/831,166

**Applicant(s)**

LEVEQUE ET AL.

**Examiner**

Jason M Perilla

**Art Unit**

2634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 May 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☒ Claim(s) 1-9 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>5/01 11/01</u> . | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. Claims 1-9 are pending in the instant application.

#### ***Information Disclosure Statement***

2. The information disclosure statements (IDS) submitted on June 7, 2001 and November 8, 2001 are in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statements are being considered by the examiner.

#### ***Specification***

3. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and **generally limited to a single paragraph** on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. *The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided.* The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

#### ***Claim Objections***

4. Claims 1-9 are objected to because of the following informalities:

Regarding claim 1, the variable M or m should be consistent throughout the claim. For instance, either the upper case or lower case should be maintained throughout. The instances of "input signals" should be replaced by – the input signals— in lines 4, 6, 11, and 17 to avoid a plurality of definitions because the "p input signals" is

defined in the preamble. The phrase “comprising summing means” should be replaced by –comprising a summing means—in line 13.

Regarding claim 3, the phrase “wherein first and second means” in line 1 should be replaced by –wherein the first and second means--.

Regarding claim 4, the phrase “wherein first and second means” in line 1 should be replaced by –wherein the first and second means--.

Regarding claim 5, the connections between the flip-flops should be properly defined by defining connections between a first and a second flip-flop rather than only defining connections between a flip-flop.

Regarding claim 8, “the processing means” of line 1 lacks antecedent basis. Further, the delivering of “two first DOT and CROSS signals” should be replaced by delivering –a first DOT and a first CROSS signals— because it is unclear if two first DOT and two first CROSS signals are delivered. Likewise, the delivering of “two second DOT and CROSS signals” should be replaced by --a second DOT and a second CROSS signals--.

Regarding claim 9, the first differential demodulation circuit DD(I) is incorrectly noted as DOT(I) in line 5.

Appropriate correction is required.

***Allowable Subject Matter***

5. Claims 1-9 are indicated to contain allowable subject matter.
6. The following is a statement of reasons for the indication of allowable subject matter:

The claims are indicated to be allowable over the prior art of record because the prior art of record does not disclose the generation of intermediate signals by the particular weighted sum combination of the input signals as claimed in the independent claim 1.

### ***Conclusion***

7. This application is in condition for allowance except for the following formal matters:

The objections above.

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following prior art is cited to show the state of the art with respect to parallel digital filters.

U.S. Pat. No. 5809074 to Werner et al.

U.S. Pat. No. 5381357 to Wedgwood et al.

U.S. Pat. No. 5222144 to Whitehart.

U.S. Pat. No. 5103416 to Cavallotti et al.

U.S. Pat. No. 5031133 to Sasaki.

U.S. Pat. No. 4947362 to Bui.

U.S. Pat. No. 477612 to Tomimitsu.

U.S. Pat. No. 4779225 to Fukasawa et al.

U.S. Pat. No. 5781076 to Iwamatsu et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason M Perilla whose telephone number is (571) 272-3055. The examiner can normally be reached on M-F 8-5 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Chin can be reached on (571) 272-3056. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jason M. Perilla  
August 25, 2004

jmp



**CHIEH M. FAN**  
**PRIMARY EXAMINER**